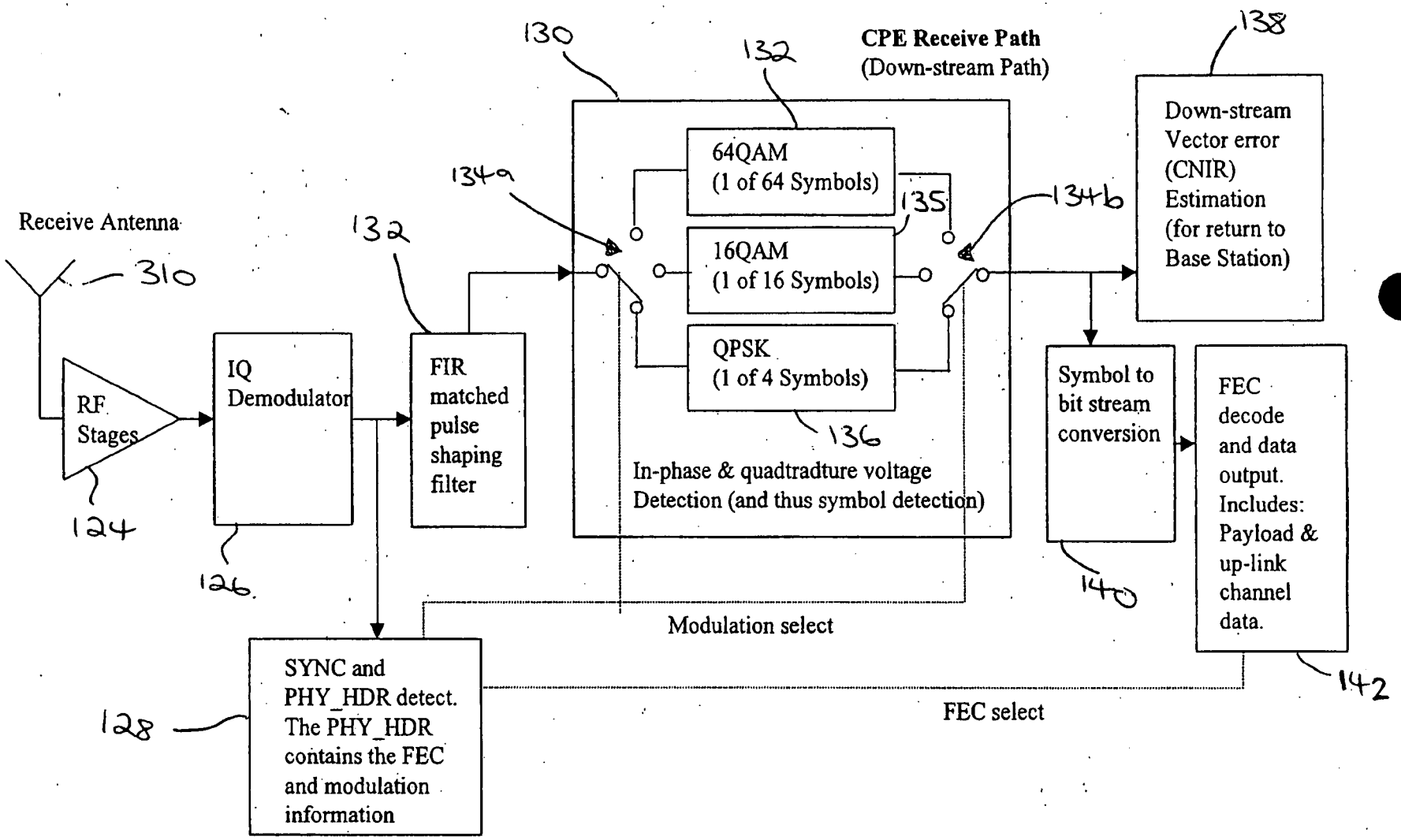
130
132
CPE Receive Path
(Down-stream Path)
138
Down-stream
Vector error
(CNIR)
Estimation
(for return to
Base Station)
134a
64QAM
(1 of 64 Symbols)
135
134b
16QAM
(1 of 16 Symbols)
QPSK
(1 of 4 Symbols)
136
In-phase & quadtradture voltage
Detection (and thus symbol detection)
Receive Antenna
310
132
RF
Stages
124
IQ
Demodulator
126
FIR
matched
pulse
shaping
filter
Symbol to
bit stream
conversion
140
FEC
decode
and data
output.
Includes:
Payload &
up-link
channel
data.
142
Modulation select
SYNC and
PHY_HDR detect.
The PHY_HDR
contains the FEC
and modulation
information
128
FEC select

FIG 11

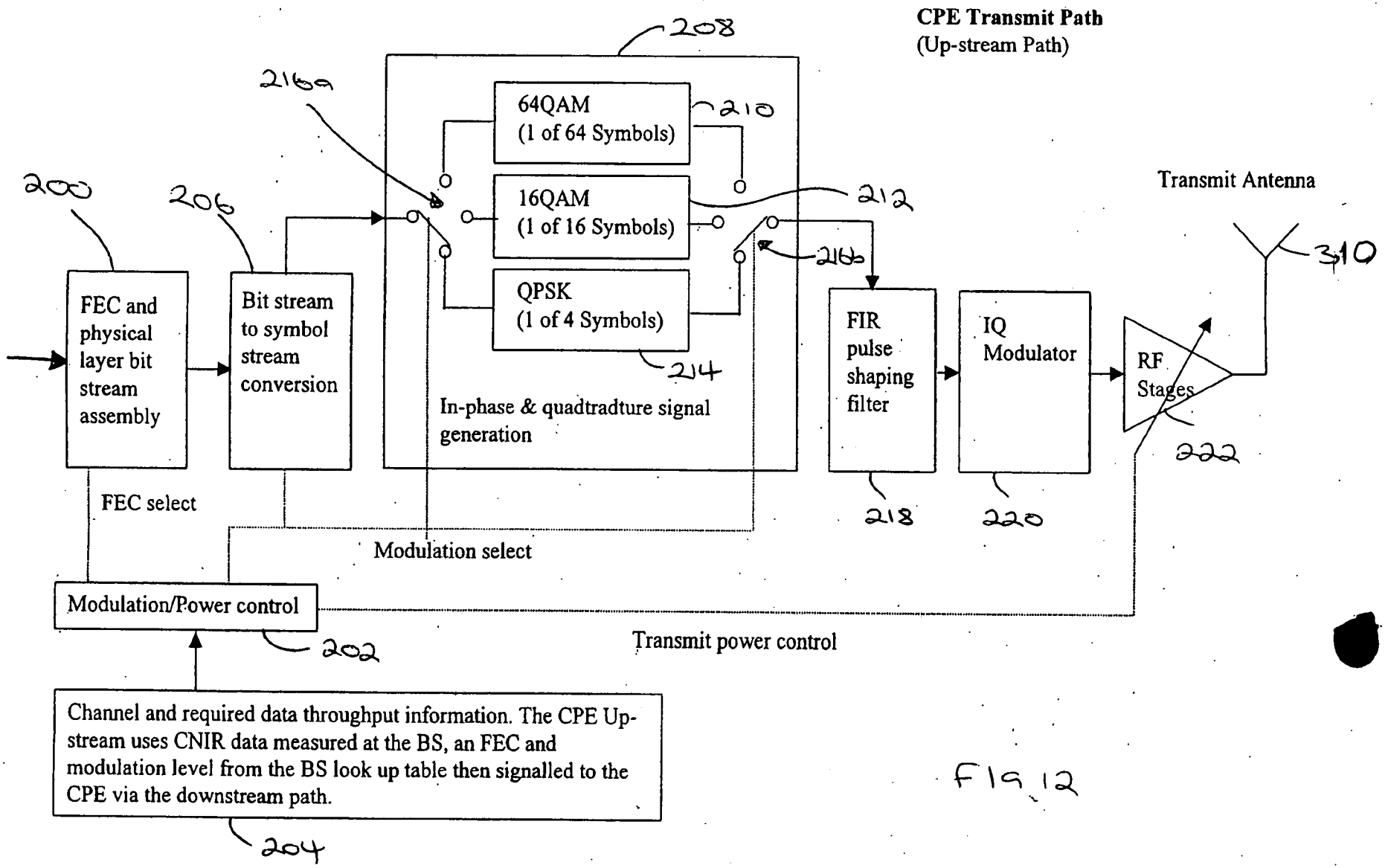
CPE Transmit Path
(Up-stream Path)
208
216a
64QAM
(1 of 64 Symbols)
210
16QAM
(1 of 16 Symbols)
212
QPSK
(1 of 4 Symbols)
214
216b
200
206
FEC and physical layer bit stream assembly
Bit stream to symbol stream conversion
In-phase & quadtradture signal generation
FIR pulse shaping filter
218
IQ Modulator
220
RF Stages
222
Transmit Antenna
310
FEC select
Modulation select
Modulation/Power control
202
Transmit power control
Channel and required data throughput information. The CPE Up-stream uses CNIR data measured at the BS, an FEC and modulation level from the BS look up table then signalled to the CPE via the downstream path.
204

Fig 12